

## **ABSTRACT OF THE DISCLOSURE**

A graphics rendering engine within a software development tool is used to perform software debug operations by analyzing the status of instructions within various 5 stages of a superscalar processor pipeline. The debug operations are carried out using code breakpoints selected by a user through a graphical user interface. Once a line of code is selected, the processor pipeline can be examined by designating a highlighted color, for example, for certain stages and corresponding instructions that will proceed to the next stage, and not designating stages and corresponding instructions that will not 10 proceed. This allows a user to visually examine the efficiency of the instruction throughput at select regions in the sequence of instruction addresses. Armed with the information, a user can then modify the sequence if desired.